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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,815	06/15/2000	Stephen McRobert	50100-754	9322

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600 13th Street NW
Washington, DC 20005-3096

EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
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2661

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DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

KS

Office Action Summary

Application No.

09/593,815

Applicant(s)

MCROBERT, STEPHEN

Examiner

Robert W Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1.0 The application of Stephen McRobert for a "MATCH SIGNALS IN DATA SWITCHING SYSTEMS INCLUDING MULTIPLE SWITCHING DEVICES" filed 06/15/2000 which claims benefit based upon 60/152,949 which was filed upon 9/9/1999 has been examined. Claims 1-15 are pending.

Drawings

2.0 The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

Claim Rejections - 35 USC § 103

3.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.0 Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng (U.S. Patent No.: 6,243,394).

Referring to **Claim 1**, Deng (U.S. Patent No.: 6,243,394) teaches: A data communication system (Fig 4) comprising:

Multiple switching devices for switching data packets (SWITCH PORT CONTROLLERS per Fig 4), and an expansion bus for transferring the data packets between the switching devices (114 per Fig 4 or col 6 lines 1-18)

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Each switching device having an address processing block for comparing destination address information of a received data packet with current address information (Each SWITCH PORT CONTROLLER or SPC can compare destination address to address in the TABLE 120 or 122 or 124 per Fig 4 or per col 5 lines 34-57 or col 6 line 1-col 7 line 26) and producing a match signal supplied to another switching device when the destination address information matches the current information (The applicant broadly claims "match signal". When a packet is received by a first SPC and the destination address is not found in its table then the source address information is forwarded to the other SPCs over the bus. When one of the other SPCs determines a match the packet is forwarded to the SPC where the match was found per col 6 line 55-col 7 line 26)

In Addition:

Regarding **Claim 2**, wherein the match signal identifies the switching device that generates the match signal (The applicant broadly claims "match signal". When a packet is received by a first SPC and the destination address is not found in its table then the source address information is forwarded to the other SPCs over the bus. When one of the other SPCs determines a match the packet is forwarded to the SPC where the match was found per col 6 line 55-col 7 line 26. It would be obvious to one of ordinary skill in the art at the time of the invention that match signal would have to be sent back to the first SPC in order for the first SPC to forward the packet to the SPC which had destination address in its table per col 6 lines 61-68)

Regarding **Claim 3**, wherein the address processing block is configured for producing a forwarding control signal for forwarding the received data packet to a destination associated with the destination address information (The applicant broadly claims "forwarding control signal". When a packet is received by a first SPC and the destination address is not found in its table then the source address information is forwarded to the other SPCs over the bus. When one of the other SPCs determines a match the packet is forwarded to the SPC where the match was found per col 6 line 55-col 7 line 26. It would be obvious to one of ordinary skill in the art at the time of the invention that the first SPC would have to know the address of the SPC that sent the match back to it in order so that the SPC can forward the packet to the SPC per col 6 lines 61-68)

Regarding **Claim 4** wherein the address processing block is configured for comparing source address information of the received data packet with the current address information to update the current address information in accordance with the source address information if the source address information does not match the current address information (The SPCs per Fig 4 compare the source address of the received data packet with the current address in their respective table. They update their own tables if the source address of the packet is on a LAN port that they are directly attached to per col 5 lines 25-67 or col 6 lines 1-43)

Regarding **Claim 5**, wherein the address processing block of said another switching device is responsive to the match signal for updating the current address information in accordance with the destination address that causes the match signal (The applicant broadly claims "another

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switching device responsive to the match signal for updating the current address information in accordance with the destination address". Col 5 line 1-col 7 line 26)

Regarding **Claim 6**, wherein each switching device comprises a match pin connected to the match pin of said another switching device to transfer the match signal (The applicant broadly claims "match pin connected to the match pin of another switching device". The reference teaches that if the packet destination address is not found in the table of the first SPC then the packet's destination address checked over the address table look up bus per col 6 line 59-col 7 line 26. The address table lookup bus sends signals over the bus when the match of address occurs and the bus sends signals on pins or matched pin)

Regarding **Claim 7**, wherein the match signal is transferred via the expansion bus (The applicant broadly claims "match signal is transferred via the expansion bus". The examiner interprets this to mean that when a packet is received by a first SPC and the destination address is not found in its table the SPC forwards the destination address to a second SPC over a address lookup bus per col 6 lines 55-67)

Regarding **Claim 8**, wherein the address processing block is configured for processing the source and the destination address information of data packets received from the expansion bus (Address lookup bus interconnects switching port controllers per col 6 lines 16-18. The address lookup bus is used to look up destination addresses in the tables of other SPCs. The tables of other SPCs are created based upon Source addresses consequently the processing block is configured for processing source and destination addresses per col 5 line 1-col 7 line 27)

Regarding **Claim 9**, wherein the address processing block of a switching device is further configured for processing the source and the destination address information of data packets received from network stations connected to the switching device (col 5 line 1-col 7 line 27)

Deng does not expressly call for: match signal but teaches determining a destination match per col 6 lines 55-67)

It would be obvious to one of ordinary skill in the art at the time of the invention that match signal would have to be sent back to the first SPC in order for the first SPC to forward the packet to the SPC which had destination address in it's table per col 6 lines 61-68)

Referring to **Claim 10**, Deng (U.S. Patent No.: 6,243,394) teaches: In a data switching system having a multiple switching devices (Fig 4 shows multiple SWITCHING PORT CONTROLLERS in a data switching system) comprising the steps of:

Comparing destination address information of a received data packet with first current address information maintained by a first switching device (Each SWITCH PORT CONTROLLER or SPC can compare destination address to address in the TABLE 120 or 122 or 124 per Fig 4 or per col 5 lines 34-57 or col 6 line 1-col 7 line 26)

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And supplying a match signal to a second switching device when the destination address information matches the first current address information (Each SWITCH PORT CONTROLLER or SPC can compare destination address to address in the TABLE 120 or 122 or 124 per Fig 4 or per col 5 lines 34-57 or col 6 line 1-col 7 line 26. The applicant broadly claims "match signal". When a packet is received by a first SPC and the destination address is not found in its table then the source address information is forwarded to the other SPCs over the bus. When one of the other SPCs determines a match the packet is forwarded to the SPC where the match was found per col 6 line 55-col 7 line 26)

In Addition:

Regarding **Claim 11**, wherein the second switching device stores second current information updateable in response to the match signal (The applicant broadly claims "second current information" The SPC where the destination address is found or second switching device has destination address or second information stored in it per col 5 line 1-col 7 line 26)

Regarding **Claim 12**, wherein the second current information is updated in accordance with the destination address information that causes the match signal (The applicant broadly claims "second information is updated that causes the match signal". The packet is forwarded to the SPC which recognizes the destination address and the packet is updated with information from the second SPC this information is information that cause the recognition of the source address or was based on information that is updated in accordance with the destination address that causes the match signal per col 5 line 1-col 7 line 26)

Regarding **Claim 13**, wherein further comprising the step of comparing source address information of the received data packet with the first current information to update the first current information in accordance with the source address information if the source address information does not match the first current information (col 5 line 1-col 7 line 26)

Regarding **Claim 14**, further comprising the step of comparing the source address information of received data packets with the second current information to update the second current information in accordance with the source address information if the source address information does not match the second current information. (col 5 line 1-col 7 line 26)

Regarding **Claim 15**, wherein the second switching device uses the second current information for making data packet forwarding decisions. (col 5 line 1-col 7 line 26)

Deng does not expressly call for: match signal but teaches determining a destination match per col 6 lines 55-67)

It would be obvious to one of ordinary skill in the art at the time of the invention that match signal would have to be sent back to the first SPC in order for the first SPC to forward the packet to the SPC which had destination address in it's table per col 6 lines 61-68)

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Conclusion

5.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson
Examiner
Art Unit 2661

RWW
October 24, 2003



DANIELSON
RECEPTIONIST